

JACG JACG

NEWSLETTER
Vol. 4 No. 7

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THE JERSEY ATARI COMPUTER GROUP

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JACG HOTLINE

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In This Issue

From the Editor's Desk...

This issue contains the Index to Volume 3 of the Newsletter. Articles are placed in one of six categories: software review, hardware review, printed material review, programs, general, and satire. As you peruse this index note the range and depth of the articles which we generated during the twelve month tenure of Volume 3. It is prodigious. There had to be something for everyone in that series of publications.

Not listed are all of the articles done by our regular contributors. Within each of our monthly columns is an additional wealth of information. Art's Arcade, alone, had more than three dozen reviews of software. Time permitting I intend to put together an index of material found inside the columns. Any volunteers out there?

Speaking of helping out- have you made a commitment to yourself to send in something -anything- to the newsletter this year? It doesn't have to be fancy or lengthy. Just be yourself and share your thoughts. If you need help we are standing by. We are a user GROUP. That means a collective self only as strong as its individuals.

We look forward to seeing your name under Author in the Index to Volume 4.

Frank Pazel
Editor-in-Chief, JACG Newsletter

MARK YOUR CALENDARS!!

JACG Meeting Schedule

April 13, 1985
May 11, 1985
June 8, 1985
July 13, 1985

From the Conn - A. Leyenberger.....	2
Getting Down to Basics - R. Kushner.....	3
ATR Talk - M. Morris.....	3
Frontiers of Knowledge - D. Forbes.....	4
Via Inside Info	6
Peeks and Pokes - K. Pietrucha.....	6
Atari and the Learning Disabled - P. Jean.....	8
Drive A Printer - J. Miller.....	9
Atari Users in Japan - M. Brandt.....	9
Meeting Highlights - J. Kennedy.....	10
JACG Newsletter - Volume 3 Index.....	15
BASIC Title Scroll - J. Cona.....	16
The MACtruth.....	16
Byte-sized Programming - T. Pazel.....	17
ATR Corner - M. Ayres.....	20
Bounty Bob Contest.....	21
The Literature of Forth - D. Forbes.....	22
Write the Punch Line Contest.....	23
Cartoons by Tony Pellechio.....	9,10,16,19,21

*** 2 CONTINUED 2 ***

Win A Monitor and Software
See Pages 21 and 23 For Details!

I am having a difficult time writing this months president's column. I just cannot seem to get up the energy to do it. Why, you ask? Well, since you asked, I'm gonna tell you. So stay put till I'm finished.

There are a handful of JACG members that carry the club. You know what I mean. The ones that give demonstrations at meetings, or volunteer their time to perform the various functions of the JACG offices or come up with an idea and then carry it out whether it is T-Shirts, newsletter indexes or whatever. These few folks have donated, in some cases, hundreds of hours to the group. What do they get in return? NOTHING!

This is not the first time I have said this either in print or at a meeting. I am getting FED UP with the LACK OF SUPPORT that members give the group. There are a lot of examples I could give but I will take two. Dick Kushner's BASIC column in the newsletter for one. Dick has been asking for suggestions, comments even a word that someone is reading is column and has received not a single response. He has said in print, at least twice, that unless he receives some input/feedback from club members, he will quit writing his column. I don't blame him a bit if he stopped right now, in fact I would encourage him to quit wasting his time if no one is going to show any interest or appreciation.

Example 2: The JACG HOTLINE. It's sitting three yards away from me right now. Tonight is time for a new tape. I started this thing in November and for several weeks made a new tape weekly. Since I have various contacts in the computer industry, I thought it could be a way for me to share my knowledge and information with the rest of the club. I received very little feedback so I started making a new tape every TWO weeks and still no feedback. I even turned off the answering machine for two weeks and only one person inquired about the status of the hotline. Is the HOTLINE something you want? Do you care whether it exists or not? If you think it should be somehow different tell me. If you don't want it, tell me and I will save myself a couple of hours every week or so. My time is valuable too!

As I said, I could go on with example after example of JACG members not actively participating in the group, showing interest, giving feedback, not volunteering. The POINT IS, the FEW OF US who HAVE GIVEN so much of our time, energy and ideas WILL NOT CONTINUE to participate UNLESS we feel that WHAT WE DO IS OF INTEREST AND APPRECIATED.

That is issue one, the near BURN-OUT of the existing few contributors to the group. Issue two is the LACK OF VOLUNTEERS. We must get more and different people giving demonstrations, tutorials, etc. at our meetings. We need more children to be involved. It is a good experience for them and it can benefit the group. We also need a broader range of topics. Let's go to it.

The third issue is serious. There will BE NO APRIL MEETING UNLESS we get volunteers to help with setting up and closing down the meetings and a person to pick up the Auditorium key at Bell LABS (Murray Hill) and

show up first thing Saturday morning. Vince Murphy and Herb Lehner have been doing this for the past couple years. There IS NO REASON why they should have to do it for the rest of their lives.

I am not joking about this! As this is being written, I am about to start phoning JACG members who work at Bell Labs in Murray Hill looking for a responsible person to take care of the key. If I cannot find someone then the first order of business at the March meeting will be to find volunteers. Then NO VOLUNTEERS, NO MEETING!

I have just spent an hour of my time writing this. By the time I give it to Frank Fazel, another hour will have elapsed. I "invested" two hours because I believe in what JACG is all about and want it to succeed. But their are limits to what I and the other few volunteers will do.

It's your User Group and if you want it to succeed, then you had better get involved.

Arthur Leyenberger
JACG President

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Membership Renewal
=====

Take a moment and look at your mailing label on a recent issue of the JACG newsletter. Check the bottom right hand corner following "Last Issue:". This is the month/year when your membership expires. Try to renew at least one month early. This helps us keep our book keeping in order and avoids your missing any issues of the newsletter.

There are two easy ways to renew:

1. Fill out a membership renewal form in the front lobby before our monthly meeting and present it with \$20 (in cash or check) to the Treasurer.
2. Copy the information on your mailing label and send, with \$20, to:

Ron Kordos
Treasurer, JACG
201 Lake Valley Road
Morristown, NJ 07960

>>>CHECK YOUR LABEL<<<
>>>TODAY!<<<

Getting Down to BASICs by Richard Kushner - JACG

There will be no discussion of Atari BASIC in this column this month. The input from the membership has not been sufficient to impel me to come up with a topic. However, I've received an interesting letter from one of our JACG members and I'd like to share a part of that with you.

"I suspect most new owners feel, like me, that we're late to a party that's been going on for some time. At this time I don't feel I have the talent or experience to contribute much to the club. Maybe that's why you're not getting a lot of feedback."

"What I want most right now are ideas and suggestions as to the best way to explore and find out about the machine. What I'd REALLY like is a JACG disk of beginner's programs, heavily commented, written to show off and explain how to use the Atari's features."

Is this a general feeling among our membership? I suspect that it might be. Having been an Atari owners for a long time now, I tend to forget that not everyone has had as much experience with their computers. We certainly have enough experienced Atari owners to enable us to put together a disk of material that will help in meeting this request. What I'd like to know is how many others share these feelings. I will discuss this with the membership at the March meeting, when the newsletter containing this column will be distributed. Please share your thoughts with the rest of us so that JACG can try to meet your needs and so that we all may grow in our computer knowledge.

Next month, no matter what response the above elicits, we'll get back to BASIC programming wherein I'll share some clever tips on how to use the Atari that have been found in the newsletters of other groups. As a teaser, let me say that there is a simple, but tricky, way to keep the computer from printing the question mark when you use an INPUT statement. See you next month.

GIVE A BIT!!!

Contribute to the Newsletter this month.

ATR Talk by Walt Morris - JACG

My topic this month is how to make CP/M friendlier. A lot of people these days use the UNIX (a trademark of AT&T Bell Laboratories) operating system at work, and really become accustomed to such niceties as: output redirection (saving the output from a program into a file without having to change the program), pipelining (making the input of a program read the output of a different program), path searching (a means of specifying alternate disks to look on for programs), shell variables (a means to hold strings or numerics for later recall or manipulation), and shell programming (the ability to write programs in the same language you use to interact with the computer's OS, similar to the "submit" feature of CP/M).

Well, all these features (and more!) can be yours with two different programs: Microshell from New Generation Systems, Reston VA and ZCPR3 from Crescendo Systems, Pleasant Hill CA.

Microshell is a program which takes over from the standard CP/M terminal I/O handler (CCP) and gives you all the previously mentioned features, and numerous others. One of the most notable of these other features is command line editing. With that you can edit the command you are currently entering if you made a mistake, or even recall the last line typed and correct a mistake you may have made. The commands for the editing are the same as for Wordstar (a trademark of MicroPro International Corp.), and once you get used to it you will miss it on anything that doesn't use it.

ZCPR3 has similar features, and some additional ones to support sub-directories, make menus for easier command execution, and even recover files accidentally deleted.

So if you're looking for a little bit of UNIX on your ATR, either of those will fit the bill.

Problem Corner

This month we have a problem mailed in by a user. The problem is that bad sectors get reported when using a disk which had been formatted with DDINIT which had reported no bad sectors. The person who sent in the problem didn't say whether this happened right away or after a few days or weeks, so my initial thought is that the disk may have been placed near some magnetic field, causing partial erasure. Does anyone out there know any more about what might be causing this?

Answers to this (and, of course, problems you need help with) can be mailed to me at 524 Stratford Rd., Union NJ 07083.

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FRONTIERS OF KNOWLEDGE

by Donald Forbes - JACG

There is a story in Joe Miller's Joke Book (he was the Milton Berle of the Depression days) about a tall fellow walking down the street who sees a short man trying to push a horse through a revolving door and decides to give him a hand. He then helps the short man walk the horse up two flights of stairs, into an apartment, into the bathroom, and then into the bathtub. The short man then takes a .38 caliber pistol from his belt and shoots the horse through the head.

The tall man, eager for an explanation, gets this story: "I have a brother-in-law who always says 'I know...I know.' Tonight he is coming over to visit and when he goes into the bathroom he is going to come running out yelling: 'There is a dead horse in your bathtub with a bullet hole through his head...' Then I am going to sit back in my chair and say: 'I know...I know...I know!'"

It is not always easy to stand at the frontiers of knowledge, whether it be physics, or mathematics, or computer science. Sometimes it takes heroic measures.

The equivalence of mass and energy was propounded in 1905 in a paper by Albert Einstein, and he suggested at the time that radium salts (which give off energy) might be used to test the hypothesis.

At 9:15 on the morning of August 6, 1945 a piece of metal 28 inches in diameter and 120 inches long wiped out half of Hiroshima. On August 9 a similar weapon wreaked similar destruction on Nagasaki. The equivalence of mass and energy was no longer a theory.

It is more than a 100 years ago that Georg Cantor laid the foundations for set theory in his book on transfinite numbers. Set theory, based on the notion of inclusion, then became the foundation stone for the rest of mathematics.

Today mathematicians are trying to rebuild mathematics on a new foundation, relying on the structure of its elements instead of the mere notion of inclusion. The change has had a profound effect on mathematical research, and has begun to penetrate the classes in computer science at the universities.

Professor John Walker Gray of the University of Illinois gives this current report on a meeting in Denver to assess the new trends:

GRAY'S REPORT

On the broadest possible time scale, there have been three great advances in mathematics: Euclidean geometry, Newtonian

and Leibnitzian calculus, and Cantorian set theory. Each was a culmination of decades or centuries of fragmentary results and each provided the impetus for vast new systematizations of knowledge. In each case the original insights required extensive modifications and improvements (those in geometry not appearing until the 20th century).

As far as set theory is concerned, what is clear is that we are still in the middle of this advance and it is too soon to speculate as to its final form. The paradoxes of naive set theory showed that the Cantorian version was inadequate, but the various axiomatizations that soon were devised, while serving their purpose, have never been of particular interest to mathematicians. They now function mainly as talismans to ward off evil.

The problem is that the original intuition of individual sets as collections from which all properties have been abstracted other than that of being merely a collection--i.e., as structureless heaps of sand--is not easily captured in an axiomatic framework. In any case, what the axioms have to express is that, independent of any internal structure that sets may have, certain constructions (like subsets, product sets and power sets) can be carried out and that these constructions have very definite properties.

Thus the "collection" of all sets (and functions) has a very rich and rigid structure and it is this structure that enables the rest of mathematics to be built up within set theory.

The role of category theory in furthering the set-theoretical advance in mathematics is to describe this structure precisely, independent of how the internal nature of individual sets is described. Thus category theory can be regarded as the mathematical manifestation of the general cultural movement of the mid 20th century called 'structuralism.'

P. Caws in his article on Structuralism in the Dictionary of the History of Ideas (Scribner 1973) says that "...structure, in the structuralist sense, is precisely the significative (as opposed to the material) content of the system...structuralism is the view that structure in this sense is a more fundamental characteristic of the objects it studies than are their physical components..."

There are two areas of mathematics where categorical methods have been strikingly successful: homological algebra and topos theory...Topos theory is the part of category theory which is most concerned with sets and the relation of logic to set theory.

Homological algebra was a development of the 1960's and topos theory of the 1970's. The purpose of the Special Session on Mathematical Applications of Category Theory held at the American Mathematical

Society meeting in Denver, 1983--reported on in this volume--was to discuss what is going on in the beginning of the 1980's.

It should first of all be pointed out that the title is a misnomer. There is (practically) no such thing as "pure", as distinct from "applied" category theory. Virtually all of category theory arises out of the attempt to understand some aspect of mathematics and place it in its appropriate context.

Needless to say, this doesn't always work, but when it does it can lead not only to vast generalizations, but to vast clarifications and this is the purpose of category theory.

However, category theory has developed its own language, and, for those not familiar with it, what was intended as a clarification may appear as the rankest obfuscation...

Many of the elementary concepts of category theory were introduced for the purpose of expressing familiar concepts of set theory and their generalizations in other areas of mathematics. A partial list of such pairs of concepts is given in the following table:

CATEGORY THEORY	SET THEORY
Object	Set
Morphism	Function
Monomorphism	One-to-one function
Epimorphism	Surjection
Isomorphism	Bijection
Product	Cartesian product
Coproduct	Disjoint union

* * *

Professor Gray makes it clear that the frontiers of mathematical research can be a fascinating topic if a mathematician takes the trouble to describe it in the language of the layman.

Like the character in Moliere's play who to his surprise had been speaking prose all his life without knowing it, you have been using category theory unknowingly. (Moliere was a master of the uses of lunacy, but his body--as befits all mockers--was cast face down in an open pit on unhallowed ground.) Everybody knows that four times eight is thirtytwo. The fact that two squared times two cubed is equal to two to the fifth power (converting multiplication into addition of exponents) is one of the many two-way mappings of different structures that are studied within the framework of category theory.

Category theory has already invaded the classrooms of computer science, as Professor Frank S. Beckman of Fair Lawn NJ who teaches computer science at Brooklyn College makes clear in his book on the Mathematical Foundations of Programming (Addison-Wesley 1980). Almost all the book concerns the contributions of mathematics to computing.

Here are some of Beckman's comments on what it happening in the computer science classes today:

BECKMAN'S REPORT

A number of 'pure' mathematicians, most notably Samuel Eilenberg, have recognized the algebraic character of much of automata theory and formal linguistics, and a major effort is under way to reformulate large parts of these areas of computer science in algebraic terms. It is clear that this approach results in more succinct demonstrations of existing theorems, and it is hoped that the new perspective and clarity of mathematical structure so obtained will lead to important new discoveries.

To give the reader some taste of this formulation in algebraic terms we briefly describe an algebraic category and show how to describe in these terms the class of finite automata and a class of machines that realize the partial recursive functions.

This kind of mathematics has been described (by some mathematicians) as "abstract nonsense," but the fruitful perspective that it seems to provide in considering the applied problems of computer science indicates that this criticism is too harsh.

The search for greater order and clearer structure in the computer sciences has lead a number of research workers to cast many of the problems of automata theory, computability, and linguistics in algebraic terms. In particular, the perspective offered by categorical algebra is very useful.

This branch of algebra is a recently developed subject that has been successfully applied to the study of the structure of a number of mathematical systems. The central ideas are fertile in that they often relate developments in quite disparate mathematical fields.

Thus, the theory provides a substantial unifying force that is often antithetical to the great profusion of modern mathematics. The notions involved are at times suggestive of new results or interesting problems, and the tools, techniques, and vocabulary of the theory often permit compact and elegant expositions of earlier obtained mathematical results.

It is not unreasonable, therefore, to expect that a language and perspective that are so productive in describing and guiding the development of large portions of mathematics should be equally useful in automata theory, computability, and formal linguistics.

Category theory concerns objects that are often taken to be sets and generalized mappings or 'morphisms' between pairs of these objects. As Saunders Mac Lane has observed: "Each type of mathematical system

gives rise to a corresponding category, whose objects are the systems of that type and whose morphisms are the maps of such systems. Put differently, this approach suggests that whenever a new type of mathematical system is defined, one should simultaneously define the morphisms of that system."

Many of the structures of the mathematical computer sciences allow expressions within this framework.

* * *

When your son one day grows up to be a math honors and computer science honors student at the New Jersey Institute of Technology and comes home saying, "Dad, I am having endless trouble with all this NEW math!" then you too will be able to lean back and say: "I know...I know!"

Via INSIDE INFO From the Australian Commodore Review

In the current edition of the Guinness Book of Records there is a singular omission. Although I know it is not the role of a humble rat to correct a publishing company with the magnificent name of 'Guinness Superlatives', yet I feel I must.

I carefully checked the latest edition under the section 'man-made structures'. Nowhere do I see any reference to the pile of machines awaiting service at Commodore Australia. Surely this is the largest man-made edifice in the world. It is bigger than the Aswan Dam, it dwarfs the Great Pyramid of Giza, it towers over the Great Colossus of Rhodes, it covers a wider area than the Rockefeller Centre.

Then why is it not listed as the greatest man-made edifice in the world? I am puzzled at the omission.

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PEEKS AND POKES

by Kenneth J. Pietrucha - JACG

After a long absence from our newsletter, I'm going to try and bring back the "Peek and Poke" column. Whenever possible, I'll give you an example of how I use them.

A show of hands at last month's meeting indicated most of the members are using disk drives. To me that means somewhere in the house is probably a cassette program recorder which is no longer used. I use my recorder for music while I work. Put in your favorite tape, push the play button and POKE the cassette motor on. When location 54018 is poked with a 52, the motor goes on and the music begins. You can type your programs to music as long as you don't hit the System Reset button. To turn the motor off, do a POKE 54018,60.

If you retired your cassette because you just bought a new 1050 disk drive, better check this one out. The new drives are shipped with an error sheet in the manual, which advises you to check to see what version Dos 3.0 you have. After you boot up Dos 3.0, do a PRINT PEEK(1816). If you get a value of 53, your copy of Dos 3.0 is a current version. For a value of 51 or 56, you are advised to contact Customer Relations at 800-538-8543 (NOTICE - Toll free). They tell you to send back your copy for a revised one. It's easier to find some one with an up to date version and make a copy. I cut a write protect notch on my original Dos 3 disk, reformatted the disk, and then put on the up dated version.

PEEK and POKE lists have been generated before. As a matter of fact, Mapping the ATARI is a Compute! book containing a comprehensive list of most known locations. The novelty of this column will be the applications to which these locations are put.

If anyone has an unusual application for a particular location, I would appreciate hearing from you. Until next month,...

ERROR - ERROR

Note From Ken Pietrucha

Somehow, I let an error get into my "DISK FORMATTING" article in the January newsletter. Line 10 of the short formatting program should read:

X10 254,#1,0,0,"D:"

When you proof read your own articles, you see what you want to see. The longer version of the program is correct as written.

IT'S ABOUT TIME...

THAT YOU WROTE AN
ARTICLE FOR THE
NEWSLETTER



G E M I N I S

GUIDE TO WORD PROCESSING WITH ATARIWRITER

Use of A T A R I W R I T E R with Non-Atari PRINTERS



The ATARIWRITER Word Processing system has various simplified PRINT commands available to the user, such as:

CONTROL G1,G2 or G3 - select font styles
INVERSE VIDEO - for underlining
SELECT ↑ or ↓ - super/subscripts
SELECT E - for elongation
CONTROL M,N - for double column printing

All Non-Atari Printers will NOT respond to these simplified commands. To control this type of printer, the decimal commands, each preceded by CONTROL 0, must be embedded in the text at the proper point.

A series of easy-to-use Printer Formatted Data Disks* are available at \$14.95 per dot matrix printer type and model number. Using these data disks the Atariwriter PRINT commands are correctly passed to the printer without the clumsy embedding of decimal commands. In addition, enhanced control features are also available with these data disks.

Typical of the PRINT commands found in these Data Disks are:

G1 - pica font
G2 - elite font
G3 - condensed font
G4 - proportional/super condensed
(132 char/line,100 lines/page)
G5 - italics or a downloaded font
G6 - bold pica font
G7 - bold elite font
G8 - Bold condensed or proportional
G9 - bold italics or graphics
INVERSE VIDEO - underling
SELECT ↑ or ↓ - super/subscripts
SELECT E - elongation
CONTROL M,N - double column print
(reverse feed not req'd)

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In addition, special IN-THE-TEXT* control of SYMBOLS and CHARACTERS is available by the following commands:

\0 thru 9 - access to International, Greek or Graphic sets
(may be mixed on same line)
Borders such as or ■■■■■ may be mixed
with text or stand alone

\I - Italics (may be intermixed with other fonts on same line)

\B - Bold (may be intermixed with other fonts on same line)

This ad was composed using ATARIWRITER with DATA DISK
and printed on a C. Itoh PROWRITER printer.

Atari and the Learning Disabled

by Dr. Priscilla Jean - JACG

Fortuitous circumstance, which has always been so prominent in my life, seems to have a design all its own. It is by this kind of design, rather than design in its conventional sense, that I am contributing to the newsletter. When I called Frank Pazel several weeks ago, I hadn't the foggiest idea who he was. Little did I know that at that very moment he was looking for me (or someone like me) and that I was looking for him, though we didn't know it until we spoke. I wanted some information about networking with the Atari. I had remembered reading something about it but couldn't find the article. When JACG referred me to Frank as someone who was an expert in that area, I had no idea that he had written the article I had been searching for the night before. Meanwhile, Frank was working on the Newsletter and was wishing he had a contribution from a woman. His Fairy Godmother called (I'm a woman, though not necessarily the answer to his prayers). I am an educational psychologist on the staff of The Electronic Learning Laboratory at Teachers College, Columbia University, where we evaluate and develop software. In addition, I work with children with learning disabilities in private practice. When Frank found out that I was interested in creating a network of Ataris to demonstrate some of the ways they can be used to remediate language deficits, he suggested that I write something for the Newsletter about the Atari's great potential to help the learning disabled. And that is how this article began.....

After years of professional debate, the definition of learning disabled has not been unanimously agreed upon in specific detail. Its broad definition, however, includes those with average or above average intelligence who are performing far below their potential in areas requiring language (symbolic) manipulation. There can be difficulty in one or more areas, such as reading, writing, penmanship, spelling, arithmetic, oral expression, to mention just a few. In addition to language deficits, many of the learning disabled have great organizational problems, often operating without head or tail.

How can the computer help? This was the topic of a recent talk at the Orton Dyslexia Society where I was a guest panelist. Although I spoke about the computer in general, I was thinking specifically of the Atari because of its great versatility. Not only does it remediate writing skills (as a word processor), but it also is a very effective reading comprehension tool. Because of the variety of Atari display modes, and the ease with which they are accessed, the display can be tailored to the individual needs of the reader. The mechanics of reading often can be such a struggle that the reader is exhausted even before tackling comprehension. The mechanical burden can be reduced by controlling the size of print,

the length and number of lines to be seen, as well as the rate. Since the learning disabled often have problems processing information, control of the display prevents the reader from being deluged. Moreover, the ability of the computer to highlight important features and to group words into meaningful units greatly aids the comprehension process. By reducing the mechanical burden of reading, the reader can get on with the job of comprehending.

If aiding and abetting writing carries any historical weight, future history books could conceivably identify years with B.W.P. and A.W.P. (before and after word processing, respectively). In my practice I use the Atariwriter which has turned out to be a writer's Cupid. Thanks to this program, many reluctant students have begun love affairs with writing.

The success of the word processor is no accident. Much has been written regarding its physical advantages. But perhaps equally, if not more, important (particularly for the learning disabled) are the psychological ramifications of these physical characteristics. For example, again, by reducing the mechanical burden of writing, more energy is available for the creative process of writing. Moreover, the fact that it is so easy to make changes, encourages careful proofing and editing of work for spelling, grammar, punctuation, style, etc..

Another physical characteristic is that the text is printed. As a result, it helps the student recognize misspellings. Spelling is a very visual process. The bottom line for correct spelling is how a word looks. Many of us have learned how to spell correctly from reading. We have a visual image of the printed word filed in our heads. The computer provides a printed image which we can compare to the one in memory. The print image is better than a handwritten one for comparison because it provides a closer physical match.

Moreover, the print factor is a great equalizer, particularly for those people with impossible handwriting. Because compositions are legible and professional looking, the learning disabled, who often have undecipherable penmanship, are able to experience a sense of pride in their work and a feeling of control over what they are doing. Heretofore, this had been denied to all who were not accomplished typists.

Another effect is that the computer provides a structured environment which gives closure. There is a right and wrong way to do something and a very definite procedure to follow. Many of my students need this structure and a sense of closure to function.

In addition, having to use the computer keyboard aids reflection. None of my students are touch typists. Typing slows students down because they have to hunt for the key. Since many dyslexics act before they think, this pause gives the head, rather than the hand, an opportunity to lead.

A higher cognitive process, which software is beginning to tackle, is that of organization. Idea organizers, such as ThinkTank, are primitive examples of a most important genre of software. Sophisticated programs to help get one's act together would be a boon to all of us, whether we be cleaning closets or exploring other planets. The learning disabled, in particular, need this type of software, since they often act in a diffuse way. To develop good organizational programs requires creative, knowledgeable people (like many Atari users).

So, you creative Atarians, let's put our acts together and come up with a sophisticated show of organizational structure. There are countless people to be helped and, as an additional incentive, much money to be made.

DRIVE A PRINTER

by James Miller - JACG

We all must have our favorite Word Processing program. I used Text Wizard for 18 months. I liked it because control came from the use of the OPTION, SELECT and START keys. This left the screen uncluttered and all keys, including control keys, were usable inside the text. Hit control caps and control key graphics like on Atascii BBS's appear. I never realized I was becoming screen oriented. But reading and writing was done on a screen, not paper. The TV display was all I needed. My printer was seldom used and if I had to I could use Epset before printing.

AtariWriter was a little strange with those funny inverse letters and numbers at the top. But it could use printer drivers. It could be fun to write to my non-modem friends. Mailing a letter is not as convenient as using E-mail but then I never get busy signals from a mail box. I rediscovered the printer. A few control keys and italics (G3 on MX-Epson), superscript, subscript, condensed and elongated were very manageable and mixable. A printer driver makes a difference when you understand the printer as a device with its own individual talents.

It now occurs to me, that programmers can't please all users but end up writing from a device viewpoint. It seems Text Wizard is concerned with the screen. For the ATR800, WordStar is heavily built around the keyboard. I haven't tried Letter Perfect but as I'm very fond of DOS 2.0 and LP is not, I'll pass on this one. AtariWriter seems to take the viewpoint from the printer as the main device. PaperClip is not out yet, but it seems the most often asked question is about what printer drivers it comes with.

Think about Elongating only the first letter in a paragraph. It looks great. I'm not sure how the ProWriter handles toggling fonts in the printer. But it would have beautiful results designing your own fonts used to accent only the first letter in each printed paragraph.

Atari Users in Japan

by William Brandt - JACG

Although it may come as somewhat of a surprise to some people, there is a registered Atari users group in Japan. In the early 1980's the Atari 400 and 800 computers were sold in Japan. The computer magazines there gave them very good reviews, and, although marketing there was later discontinued, a number were sold to local computer enthusiasts. Some of them got together to form the "Fuji Atari Computer Users' Group". The group has been active for a number of years, and currently has about 30 members. The monthly meetings are held in Tokyo since most of the members live in the Tokyo metropolitan area.

Since Atari computers and software are currently not marketed in Japan, the group's main activity has been to help members upgrade their hardware and to help make software more easily available. (The Atari computers and software are sold in the military exchanges, but they are usually not available to non-military personnel.) Most of the software comes from magazines such as Analog, Antic, Compute, and Softside, and through mailorder purchases. The club has a small but growing library of programs which are available to group members. There is a small fee for borrowing the programs which is used to buy commercial software to add to the library.

The interests of the members are quite varied, and range from hardware modifications to games. One of the members is interested in music and has entered some very complex arrangements using the Atari Music Composer. Another of the members designed a custom set of characters for Katakana (one of the three Japanese "alphabets") so he could use his computer to write in Japanese.

If anyone is going to Japan and would like to contact the Fuji Atari Computer Users' Group, they can write to the president, Mr. Masayuki Hata (Hata-san) who lives in Tokyo. His address is 2-35-16 Kitakoiwa, Edogawa-ku, Tokyo 133, Japan. They can also contact the vice president, Mr. Joe Langdon, who also lives in Tokyo. His address is 3-10-2 Sukuragawa, Itabashi-ku, Tokyo 174, Japan.

"SON, YOUR MOTHER AND I THINK YOU'VE BEEN SPENDING TOO MUCH TIME ON THE COMPUTER!"



FEBRUARY MEETING HIGHLIGHTS

Reported by
Joseph S. Kennedy

As is the custom, the meeting opened with a lively question and answer period covering a wide variety of topics where aid or comfort was needed by the membership.

Art passed on the info that Print Shop by Broderbund would be out for the Atari this month; the expansion bus will be saved (sort of) on the 130XE; and discount tickets are available for the NJ Micro Computer Show which is February 17th in Parsippany.

Frank Pazel gave a presentation on Easter Eggs of the software Kind. He showed us a brief musical interlude hidden in Micro Illustrator with the Atari Touch Tablet.

Frank also gave us a computer slide show which consisted of the artwork by Mark Pedersen (which has been in the newsletter in Nov. and Jan.). Frank used the program Fader from the September 1984 issue of ANTIC to control the graphics. This is an excellent way to present your Atari art. By the way, Frank is right when he says that Mark's work must be seen in its original to be appreciated fully. It is just fantastic.

After a long wait it finally happened in February; ART'S ARCADE returned to the Bell Labs Auditorium. Art demoed Alley Cat, Bounty Bob Strikes Back, and Visualizer for us. Alley Cat from Synapse is an amusing game where you play the part of Freddy the Cat and you try to get together with Felicia the Cat. But you must avoid the dog, the broom and a variety of other perils. The graphics are good and the plot unique and really quite cute. The demo of Bounty Bob Strikes Back was a rare episode in Art's Arcade - an illustration of how to win convincingly. Only the winning was done by Dennis Hettman, a true wizard of the joystick. Come on Art you need to take some lessons from Dennis. The game itself is a sequel to Miner 2049er which has Old Bounty Bob facing more of the treacherous boards. Visualizer by Maximus is not a game but rather an interesting art package which allows you to make graphics which seem to be animated by the use of color changes; straight titles and graphics; as well as font changes and printer dumps of your creations.

Richard Lamb demoed Math Mileage from CBS Software. This game consists of speeding down the highway learning math facts as you go. A painless way for the kids to learn something.

Scott Brause conducted a question and answer session on the Bulletin Board System.

Last but not least remember that Commodore announced a price decrease in the 64 due to competition from the - ready for this- IBM PCjr.



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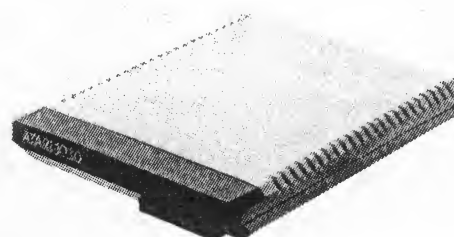
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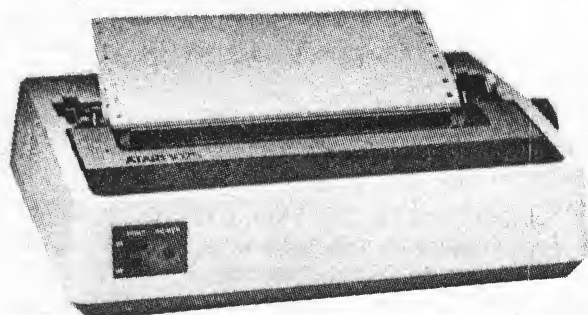
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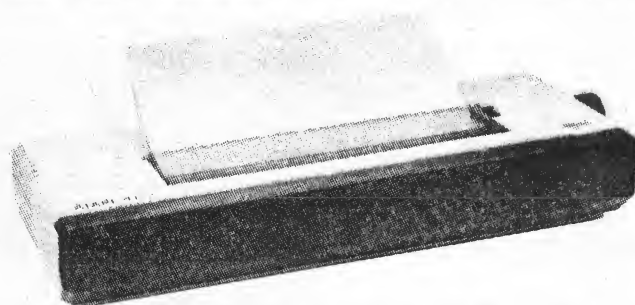
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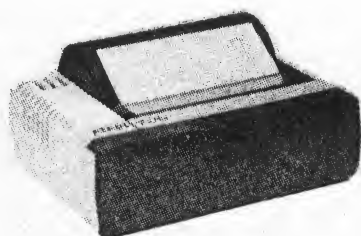
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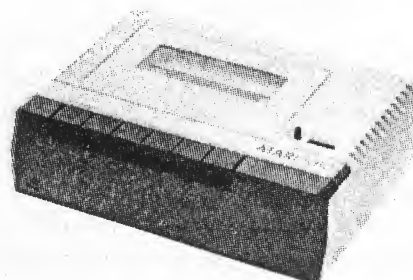
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BASIC TITLE SCROLL

by Joseph Cona - JACG

Instead of plainly printing the titled introductions to your BASIC programs give it some pizzazz and scroll the titles across the screen. Using the largest text modes, simple string manipulation and some imagination you can make impressive displays with a few lines of BASIC.

Go ahead and type listing 1 right now to get an idea of what this is all about; nothing fancy, just a simple demonstration. Be sure you type line 70 exactly as shown, that is, 19 spaces between quotes. You should notice that the word "ATARI" starts at the left side of the screen and moves to the center.

Let's go through the program to see what goes on. Line 20 creates a string which accommodates a line of up to 19 characters. Line 60 starts a loop for selecting the portion of the string to be printed starting with the 19th character position - B\$(19,19). Line 70 selects the column and row of the first print position on the screen and prints the 19th character (in this case a blank). On the second loop line 70 selects the exact same column and row used on the first loop and prints the 18th and 19th character positions directly on top. This has the effect of pushing a character to the right.

Also note that in this example blank spaces will be printed for the first 7 loops. On the 8th loop the 12th to 19th character positions are printed. That would be the "I" in ATARI plus 7 blanks. The process repeats until all 19 character positions are printed - thusly, the scrolling effect.

Line 80 is a slight delay loop between each set of characters printed. Play around with increasing or decreasing the delay to obtain the desired effect. Line 90 keeps the display on the screen.

With hardly any more effort, we can scroll more than 1 line at the same time. Listing 2 is the same as listing 1 with some added lines. Check this out, I think, you will like the effect. Note that the more lines are printed the slower the process becomes so be aware of your delay loop.

We could get fancy by adding nice colors, handling the text as data statements or using input. One idea for using this technique is to put titles on home recorded video movies. An earlier JACG article describes how to do the hook-up. Another idea is to use scrolling for presentation purposes in school or work. Be creative.

Listing 1

```
20 DIM B$(19)
35 B$="      atari      "
50 GRAPHICS 2+16
60 FOR SCROL=19 TO 1 STEP -1
70 POSITION 0,5: ? #6;B$(SCROL,19)
80 FOR DELAY=1 TO 6:NEXT DELAY
85 NEXT SCROL
90 GOTO 90
```

Listing 2

```
20 DIM B$(19),A$(19),C$(19)
30 A$="      THE JERSEY      "
35 B$="      atari      "
40 C$="      COMPUTER GROUP      "
50 GRAPHICS 2+16
60 FOR SCROL=19 TO 1 STEP -1
65 POSITION 0,3: ? #6;A$(SCROL,19)
70 POSITION 0,5: ? #6;B$(SCROL,19)
75 POSITION 0,7: ? #6;C$(SCROL,19)
80 FOR DELAY=1 TO 6:NEXT DELAY
85 NEXT SCROL
90 GOTO 90
```

The MACtruth

A lot of hype has been given over the 128K Macintosh by Apple. But is raw data that valuable? What we need to know is how much memory is available for use. With Microsoft Basic loaded the Macintosh has only 13K bytes of space left for programs and data. And you thought Atari was bad with 24K bytes. MacWrite gives you 24K bytes for your text whereas the 48K Atari running Atariwriter gives you over 20K bytes. The 48K Atari running Letter Perfect has 35391 bytes.

There have been many complaints about Atari DOS needing three passes to copy 88K bytes and even complaints about SCOPY requiring two passes. The MAC transfers about 5K bytes per disk swap. To copy 278K bytes of programs and data will take over 50 swaps and more than 20 minutes (if you are on the ball). The MAC has a 400K disk so to back up your disks you can plan on an all night session doing 80 disk swaps per disk.

This information is in part from an article by Stephen Lewis referring to material in BYTE magazine.

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Byte-sized Programming

by Tom Pazel - JACG

Last month, I discussed the ATARI display list feature by giving some background on what it was and a line-by-line example of how to create a custom mode screen. This time, I will go into a little more detail on their internal workings.

First the why's of changing the display list. A vast majority of the software available for the ATARI uses a custom display list somewhere within it. The reason for this is to remove the "boredom" of the display. Title screens, most playfields, etc. MUST use mixed graphics modes to accomplish their goal AND to attract your attention. It's difficult to overstate the importance of display list understanding when writing eye-catching programs on the ATARI. The display list concept implemented on this computer is quite unique, so take advantage of it's power.

Ah, yes, it's power. There is an old D.P. saying that I just made up: The effort required to learn a particular computer feature is exponentially proportional to it's usefulness. I don't want to elaborate on the validity of this statement, but I DO know that an exception to this is the ATARI display list.

There has been SOOO much written on the display list (ATARI Technical Notes, De Re ATARI, ANTIC, ANALOG, COMPUTE! magazine, etc.) that I hesitate to go into too much detail here. Besides, you'll begin to think that display lists are the only thing I know about ATARI's or that maybe I have some kind of "in" with the Editor. I trust that if you want to learn any more about them than what is presented here, you will contact me and I will refer you to the information.

The display list, as I said last time, is ANTIC's instructions. ANTIC's main job is to tell the computer how and what data is to be displayed on your screen. HOW and WHAT are the keywords here; HOW being "which graphics mode(s)?" and WHAT being "what part of memory (RAM)?" Here's where we hit the nitty-gritty.

ANTIC has several types of instructions within a display list. The most commonly used are:

- 1) Blank scan lines
- 2) Load Memory Scan
- 3) mode line.

Blank scan line instructions are used to tell ANTIC to do exactly what they sound like; that is, display some blank lines. One ANTIC instruction can be set to display from 1 to 8 blank scan lines. In our example from last time, I mentioned that every time a GRAPHICS command is executed, a display list is set up automatically by the OS. Well, in these cases, the first 3 instructions in the display list are

"display 8 blank scan lines". This is done to compensate for different display devices so that anything placed on the screen should be visible by all. These instructions can be used anywhere in a display list where one wants to separate data by some "odd" amount of blank space.

Load Memory Scan (LMS) instructions were also glazed over last time. They sound more complicated than they really are. In case you aren't familiar with how your ATARI displays data on the screen, here is a quickie lesson. The ATARI uses a method known as DMA, which stands for Direct Memory Access. Anything that you EVER see on the screen is represented somehow, somewhere in RAM. A good portion of ANTIC's job is determining where this data is in RAM. The Load Memory Scan instruction answers the above question, "WHAT data do I display?" by displaying memory on the screen starting from the address given immediately following the LMS instruction. HUH? Perhaps it's time for an example display list to illustrate the rest of the discussion.

Given the following display list (all numbers are in hexadecimal):

```
70 70 70 47 11 hh 07 07 07 07 41 xx yy
```

The first 3 bytes (\$70) are the 8 blank scan line instructions I was talking about above. The next instruction is \$47=71 decimal. The four (4) is what indicates that this is a LMS instruction; therefore the next two (2) bytes will be the address (11 hh) of the data to be placed on the screen. The seven (7) tells ANTIC to interpret the data (starting at that address) and display it as GRAPHICS 2. The rest of the display list (except for the last 3 bytes) are just 07, which tells ANTIC to display 5 more lines of GRAPHICS 2.

The last 3 bytes are in EVERY display list. The \$41=65 decimal is the ANTIC instruction to Jump on Vertical Blank (JVB) back to the address given in (xx yy). This is always the starting address of the display list. In other words, after displaying 6 lines of GRAPHICS 2, wait until the TV/monitor is ready to begin re-drawing the screen and as soon as it is, execute the display list again. Here is a simplified analogy of the display list in pseudo-BASIC:

```
10 DISPLAY 6 GRAPHICS 2 LINES
20 IF NOT TVREADY THEN 20
30 GOTO 10
```

There are a couple of other features available to us via the display list, such as horizontal and vertical scrolling and display list interrupts. These are both accomplished by modifying the display list.

As can be seen from all of this, display lists are an extremely powerful feature of the ATARI computer. They take a little effort to learn, but by doing so they open up whole new worlds to the programmer willing to invest the effort.

GIVE A BIT!!

**We Get Letters...
Nice Letters.**

December 28, 1984

13 Clemens Terrace
Whippany, NJ 07981

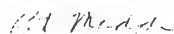
Mr. Ron Kordos
201 Lake Valley Road
Morristown, NJ 07960

Dear Mr. Kordos:

Please accept the enclosed check as payment for my 1985 membership in JACG. As a new Atari 800XL owner, it didn't take me long to develop a lot of questions about computing. In fact, after less than a month, I'm already staying up too late at night trying to make the printer do what the book says it should and attempting to write the simplest of BASIC programs. Meanwhile virtually all of my friends (Apple owners for the most part) are telling me that Atari won't be in business long enough to honor my limited 90-day warranty! What I need is to "benefit from the expertise and experience of other Atari computer users."

Let me know if there's anything else you need to know.
I look forward to a happy association.

Very Truly Yours,



Patrick Madden
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The above listings are free to current advertisers. Others interested in being listed in this column should send business address and telephone number with check for \$5 per month, payable to JACG, to advertising manager Joseph Rowland, 429 Washington Street, Hackettstown, NJ 07840.

ATR CORNER

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The following are some of the new additions to the SIG/M Library:

Volume 215 contains the latest version of CNVRT, manuscript about REC (Regular Compression Compiler), and RUN which runs CP/M 80 and 86 programs from SUB or LBR files. Volume 213 has the REC with and without Floating Point. Volume 212 has a very interesting program, namely RDMSDOS.LBR. This 35k program in library format is supposed to read MSDOS disks from CP/M 80. Apparently this program has some bugs in it, but you can imagine what it can do when it is made bug-free. In short, you are as near as you can get to IBM compatibility without the Co-Power 86. Volume 204 contains Forth 83 revised version 2. Changes to version 1, contained in volume 154, are also included as a file. Volumes 200, 201 and 202 are programs containing ZCPR3 - utilities, library/source codes.

For those with Co-Power 88, volume 207 has several CP/M 86 utilities including Library, Print, Vfiler and Dump. Volume 210 also has several utilities for CP/M 86 including a squeezer and unsqueezer.

*** *** ***

In order to increase interest in Atari CP/M, I can provide ATR 8000 users with public domain CP/M 2.2 software from the SIG/M Library. SIG/M is a user group of the Amateur Computer Group of New Jersey, Inc. The donation is \$1 per volume with your 8" disk, and \$6 with SIG/M 8" disk. All SIG/M volumes are in standard IBM format (single side/single density). SIG/M volumes can be downloaded through your modem free of cost. For ATR format in 5-1/4" disk, please contact Manuel Ayres, 129 Eleventh Street, Piscataway, N. J. 08854 - Phone 968-6112 between 9 p.m. and 10 p.m. weekdays.

*** *** ***

TRENTON COMPUTER FESTIVAL

The 10th Annual Festival will be held on Saturday, April 20, 1985 (10 to 6) and on Sunday, April 21, 1985 (10 to 4) at the Trenton State College, Trenton, N. J. Amateur Computer Group of New Jersey is one

of the sponsors of this great Computer Expg. Admission for both days and all events, except banquet, is \$7. Students/senior citizens \$3. Sunday only \$5 general admission. Banquet \$12.

=====

JACG Membership

=====

The Jersey Atari Computer Group (JACG) invites you to become a member. Dues are \$20.00 per year and entitle the member to: 1) Receive the monthly newsletter; 2) Purchase programs from the group's extensive tape and disk libraries at special rates; 3) Join special interest groups or form new ones; 4) Benefit from the expertise and experience of other Atari computer users; 5) Participate in group purchases of software at substantially reduced prices; 6) Receive a membership card that entitles the member to discounts at local computer stores; 7) Attend monthly meetings to learn about the latest hardware and software, rumors, and techniques for getting the most out of your Atari computer; 8) Submit articles and programs to the newsletter and give demos and presentations at the monthly meetings; 9) Participate in sale/swap activities with other members; 10) Access the JACG nationally famous Bulletin Board; and 11) Have a lot of fun.

If all of this sounds good to you send a check or money order, payable to JACG, to:

Ron Kordos
201 Lake Valley Road
Morristown, NJ 07960

Remember, receiving the JACG Newsletter is just one of the many benefits of being a member of JACG.

=====

TRADING POST

=====

Trading Post is a service for JACG members who wish to sell or swap items of any type. There is no charge for this service. Material must reach the Editor by the 20th of the month to be considered for inclusion in the following month's Trading Post. No commercial services or items will be accepted.

>>>>>>>><<<<<<<<

WANTED: Authors/writers to help develop interactive book concept. For details call Niles at (201) 992-6115 after 6 p.m.

FOR SALE: Atari 800 Computer; 810 disk drive; 850 interface module; Hayes 300 modem; Amdek Color 1 monitor; NEC monochromatic monitor; including software (Visicalc, B-Graph, Home Accountant, File Manager, Atariwriter...and lots more). Offer best price. Call Brian Phelan (201) 966-2128.

FOR SALE: Atari 800XL, Indus disk drive, and lots of software - \$475. Call (201) 968-6112.

BOUNTY BOB CONTEST

Gemini, in their continuing support of JACG, has agreed to sponsor a game contest. Using the new game from Big Five Software, Bounty Bob Strikes Back, there will be two divisions and Gemini will award prizes for first place and runners up.

Here are the specifics:

1. One division will be for children under 14 and the other will be for anyone over 14 years old.

2. The contest is open only to current JACG members. Players must be JACG members at the time of the run off.

3. To enter, members must submit a photo of their highest score, with their name, address, telephone number and high score printed on the back. The high score screen at the end of the game should be used. (To take a picture of the screen, use ASA 64 film with the following exposure: 1/4 sec. @ f5.6. Be sure to have the camera on a tripod and take the picture in a dark room. Be sure to bracket your shots. With ASA 100 film, an approximate exposure is 1/8 sec. @ f5.6).

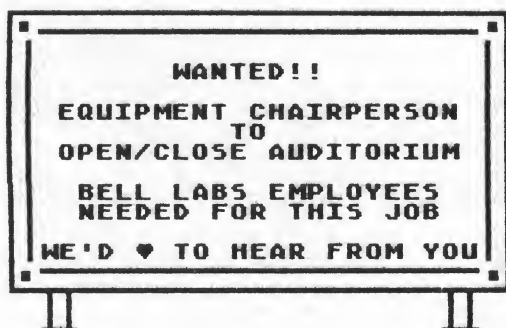
4. Entries must be received by Gemini by Monday April 1, 1985. The top four high score players in each division will compete in a playoff at the April JACG meeting. At the playoff, each contestant will have three lives to achieve their highest score. The game will start at a suitable level to minimize playing time.

5. Prizes will be awarded by Gemini. The first place player in the "14 and above" division will receive a green monitor. The first place player in "under 14" division may select any game in Bob & Sarah's store below a certain limit. Other will also be awarded.

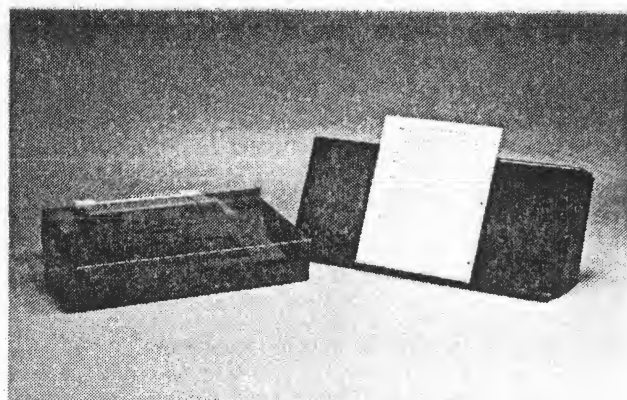
Send your entry photos to:

Bounty Bob Contest
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Remember, entries must be received by 5:00pm., Monday April 1, 1985. Good luck and happy hopping.



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THE LITERATURE OF FORTH PART TWO

by Donald Forbes - JACG

Of making many books there is no end;
and much study
is a weariness of the flesh.

The calm hopelessness of the unknown writer of one of the Wisdom Books of the Old Testament, fortunately, has not prevailed. We can embrace the optimism of a century ago of bibliophile John Wilson:

O for a book and a shady nook,
Either in door or out;
With the green leaves whispering overhead,
Or the street cries all about,
Where I may read all at my ease,
Both of the new and old;
For a jolly good book whereon to look,
Is better to me than gold.

What are those FORTH books all about? They appear in the full-page ad entitled THE FORTH SOURCE (in the latest issue of BYTE magazine) sponsored by publisher Roy Martens of Mountain View Press in California's Silicon Valley. We looked at some of them last month. Here is a rundown on some of the others, and the selection of topics once again is just as varied. (Part three is scheduled for next month.)

MASTERING FORTH by Anderson and Tracy is a reissue in a glossy cover of the new FORTH-83 tutorial that covers the complete 83-Standard vocabulary and which was first published as FORTH TOOLS Volume I. This paperback draws on the combined teaching experience of Kim Harris, Henry Laxen and Mike Perry with executable examples on virtually every page. This is the best introductory tutorial for someone with access to FORTH-83 (such as the public domain Laxen and Perry F83 or the public domain MVP FORTH--available on some bulletin boards--for the IBM PC, or vendor FORTHS such as those from Micromotion for the IBM PC or LMI for both the IBM or Wang PCs).

BEGINNING FORTH by Paul Chirlian, a professor of computer science at Stevens Institute of Technology in Hoboken NJ is a useful introductory text for anyone with a TRS-80 or IBM PC who has purchased the FORTH version available from A. Richard Miller's Miller Microcomputer Services. Other FORTH-79 users can benefit from the text if they are inclined to overlook the forty-odd recurrences of the admonition that "these words are not part of FORTH-79 but they are provided by MMSFORTH and other FORTH systems." The book discusses character strings, and floating point and complex numbers. However, the one unique feature of FORTH that allows you to create your own structures (using CREATE or <BUILDS, DOES>) is never even mentioned.

FORTH ENCYCLOPEDIA POCKET GUIDE by Linda Baker and Mitch Derick is a four-by-six-inch spiral-bound pocket-guide (on heavy paper) to all the words in fig-FORTH and FORTH-79 by the two authors of the monumental Encyclopedia. The scheme of the work is to take each one of the words in their collating sequence, provide a description, note the stack effects, and note any differences in FORTH-79. A handy guide to keep at the keyboard instead of jumping up to search for the information in a book.

AND SO FORTH by Timothy Huang ("a college level text") in 374 letterhead-sized paperback pages is a labor of love by a Chinese enthusiast. The book itself is published in Taiwan. Huang at the outset remarks that "FORTH is a fantastic, fascinating computer utilization philosophy and tool. I found that I was unable to describe all its merits in this one book. I can only say that, until you are totally immersed in it, only then can you fully comprehend the beauty of FORTH." Part one is a philosophical and historical introduction which contains this translation of a "classic of English literature" by the first FORTH user, astronomer Ned Conklin, as presented by FORTH inventor Charles H. Moore at his famous October 1979 convention speech:

: SONG

SIXPENCE !

BEGIN RYE 2 POCKET +! ?FULL END

24 0 DO BLACKBIRD I + 2 PIE +! LOOP

BAKE BEGIN ?OPENED END

SING DAINTY-DISH KING ! SURPRISE ;
Part two is a tutorial concluding with chapters on the interpreters, compilers, defining words and vocabularies (which provide a worthwhile introduction to the systems level aspects of FORTH). The third part is a discussion of the implementation of fig-FORTH on a Victor 9000 computer. The last appendix is a set of chapter-by-chapter exercises (without answers), which provide a justification for the front-cover label of College-level Textbook.

FORTH PROGRAMMING by Leo Scanlon is a 246-page paperback published in 1982 on programming in fig-FORTH and FORTH-79 by the author of '6502 Software Design' and 'The 68000: Principles and Programming' who once served as technical publications manager for Rockwell International (makers of the FORTH chip) in Anaheim CA. This introductory tutorial includes more than 50 useful programs (as well as all the source code for colon definitions of the double number extension words) and will execute with little or no modification on any FORTH system. The book is a model of clarity and should be part of every user's library.

precursors to the 83-standard. The 1982 conference on data bases and process control (40 papers, 317 pages) includes papers on data bases, process control, machine independence, project management, data structures, and mathematics. The 1983 conference was devoted to robotics and included Harold Johnson's paper on 'Expert System for Diesel Electric Locomotive Repair.' The 1984 conference focused on real-time systems (process control, data acquisition, laboratory systems, smart instrumentation, computer vision, spacecraft navigation).

Write The Punch Line Contest

3. None of the above. Therefore:

Winners (2) funny line(s) will be published in next month's newsletter. All submissions become the property of JACG and we reserve the right to feed them to the shredder.

FORTH MODIFICATION LABORATORY (FORML) PROCEEDINGS for 1980, 1981, 1982 and 1983. The three-day 1980 conference (technical workshop) held 120 miles south of San Francisco included 65 attendees. Topics of sessions, together with their chairmen, were: FORTH 79 Standard, Bill Ragsdale; Implementation Generalities, Don Colburn; Implementation Specifics, Don Boulton; Concurrency, Terry Holmes; FORTH Language Topics, George Lyons; Other Languages, Jon Spencer; MetaFORTH, Armand Gambera; Programming Methodology, Eric Welch; Applications, Hans Nieuwenhuijzen.

ROCHESTER FORTH APPLICATIONS
CONFERENCE. These yearly conferences at the University of Rochester in upstate New York have been chaired by the long-time FORTH enthusiast Lawrence P. Forsley who heads the Laboratory for Laser Energetics. The 1981 proceedings of the Standards conference (50 papers, 378 pages) contains papers commenting on the 79-standard; some were

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FIRST CLASS MAIL

~~Handwritten scribbles and markings, including what appears to be a date '3/2/85'.~~

JACG NEWSLETTER - VOLUME 4, NUMBER 7

March 1985

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37 Clover Lane
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Editor: Frank Pazel
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